

Sub a1

What is claimed is:

1. A method for translating tabular data prepared for a first display format into a second display format, comprising:

3 determining if the tabular data includes nested tables, wherein the nested 4 tables include an inner table and outer tables;

5 removing tabular data formatting if the inner table contains less than one 6 column or less than one row;

7 removing tabular data formatting if the inner table contains more than one 8 column exceeding a first predetermined width allowance;

9 removing tabular data formatting if the inner table has a horizontal display 10 length greater than a second predetermined width allowance; and

11 removing tabular data formatting for the outer tables.

12 2. The method of claim 1, wherein removing tabular data formatting if 13 the inner table contains more than one column exceeding a first predetermined width 14 allowance, comprises:

15 examining columns in the inner table to determine if more than one column 16 contains a form input field, an image exceeding a maximum pixel width allowance, or 17 text exceeding a maximum text length allowance.

18 3. The method of claim 2 wherein the maximum pixel width allowance 19 is 120 pixels.

20 4. The method of claim 2 wherein the maximum text length allowance 21 is 40 characters.

1 5. A method of translating tabular data prepared for a first display
2 format into a second display format, comprising:

3 determining if columns in the tabular data contain image data exceeding a
4 maximum pixel width allowance;

5 determining if columns in the tabular data contains a form input field;

6 determining if columns in the tabular data contain text data exceeding a
7 maximum text length allowance; and

8 removing tabular formatting if more than one column in the tabular data
9 contains image data exceeding the maximum pixel width allowance, contains a form
10 input field, or contains text data exceeding a maximum text length allowance.

11 6. The method of claim 5, further comprising:

12 determining if the tabular data exceeds an absolute maximum width
allowance; and

13 removing tabular formatting if the tabular data exceeds the absolute
maximum width allowance.

14 7. The method of claim 6 wherein the absolute maximum width
2 allowance is 350 pixels.

1 8. The method of claim 6, further comprising:

2 determining if the tabular data contains related images if the tabular data
3 exceeds the absolute maximum width allowance; and

4 sizing the related images to fit within the absolute maximum width
5 allowance.

1 9. ~~The method of claim 5, further comprising:~~

2 determining if the tabular data contains more than a single row;

3 determining if the tabular data contains more than a single column; and

4 removing the tabular formatting if the tabular data contains only a single

5 row or a single column.

1 10. The method of claim 5, further comprising:

2 determining if the tabular data contains nested tables, wherein the nested

3 tables include an inner table and at least one outer table;

4 removing tabular formatting for the ~~at~~least one outer table.

1 11. The method of claim 5 wherein the maximum pixel width allowance
is 120 pixels.

1 12. The method of claim 5 wherein the maximum text length allowance
is 40 characters.

2 13. A method of reformatting display data, comprising:

3 receiving the display data in a format suitable for displaying on a first
display device;

4 determining whether the received display data contains tabular data;

5 removing tabular formatting from the display data to yield display data

6 suitable for displaying on a second display device, the second display device having a
7 smaller display area than the first display device.

1 14. The method of claim 13 wherein removing the tabular formatting

2 includes removing one or more html table tags from the display data.

1 15. The method of claim 13 wherein the display data is a web page.

1 16. The method of claim 13 wherein the display data is HTML data.

1 17. A method of reformatting display data, comprising:

2 receiving the display data in a format suitable for displaying on a first
3 display device having first display area dimensions;

4 removing tabular formatting from the display data to yield display data
5 suitable for displaying on a second display device having second display area
6 dimensions; and

7 sending the display data with the tabular formatting removed to the second
8 display device.

9 18. A system for translating tabular data from a first display format to a
10 second display format, comprising:

11 a single row/single column heuristic module configured to examine tabular
12 data and remove tabular formatting from the tabular data if the tabular data contains less
13 than two columns or less than two rows;

14 a maximum width display heuristic module configured to examine tabular
15 data and remove tabular formatting from the tabular data if the tabular data indicates a
16 horizontal display length exceeding an absolute maximum width allowance;

17 a wide column display heuristic module configured to examine tabular data
18 and remove tabular formatting if the tabular data contains more than one column
19 exceeding a predetermined maximum column width; and

20 a nested table display heuristic module configured to examine tabular data,
21 determine if the tabular data indicates nested tables, containing an inner table and at least
22 one outer table, and remove tabular formatting from the at least one outer table.

1 19. ~~The system of claim 18 wherein the wide column display heuristic~~
2 module further comprises:

3 a first column examiner configured to indicate that a column in the tabular
4 data exceeds the predetermined maximum column width if the column contains image
5 data exceeding a maximum pixel width allowance;

6 a second column examiner configured to indicate that a column in the tabular
7 data exceeds the predetermined maximum column width if the column contains a
8 form input field; and

9 a third column examiner configured to indicate that a column in the tabular
10 data exceeds the predetermined maximum column width if the column contains text data
11 exceeding a maximum text length allowance.

12 20. The method of claim 19 wherein the maximum pixel width
13 allowance is 120 pixels.

14 21. The method of claim 19 wherein the maximum text length allowance
15 is 40 characters.

16 22. The method of claim 18 wherein the maximum width display
17 heuristics module further comprises:

18 a related image module configure to determine if images exceeding the
19 absolute maximum width allowance are related and resize related images to fit within the
20 absolute maximum width allowance.

21 23. A proxy server, comprising:

22 a processor configured to process requests for remote data pages received
23 from portable computing devices,

4 display heuristics software configured to examine tabular data in remote
5 data pages and translate the tabular data from a first display format to a second display
6 format; and

7 a memory configured to retain the display heuristics software and data
8 generated by the display heuristics software during examination of the tabular data.

1 24. The proxy server of claim 23, wherein the display heuristics
2 software further comprises:

3 a single row/single column heuristic module configured to the examine
4 tabular data and remove tabular formatting from the tabular data if the tabular data
5 contains less than two columns or less than two rows.

6 25. The proxy server of claim 23, wherein the display heuristics
7 software further comprises:

8 a maximum width display heuristic module configured to examine the
9 tabular data and remove tabular formatting from the tabular data if the tabular data
10 indicates a horizontal display length exceeding an absolute maximum width allowance.

11 26. The proxy server of claim 23, wherein the display heuristics
12 software further comprises:

13 a wide column display heuristic module configured to examine the tabular
14 data and remove tabular formatting if the tabular data contains more than one column
15 exceeding a predetermined maximum column width.

16 27. The proxy server of claim 23, wherein the display heuristics
17 software further comprises:

18 a nested table display heuristic module configured to examine the tabular
19 data, determine if the tabular data indicates nested tables, containing an inner table and at

5 least one outer table, and remove tabular formatting from the at least one outer table.

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